

Notice of Allowability

Application No.

10/675,168

Examiner

William P. Fletcher III

Applicant(s)

BHATTACHARYA ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment and response filed 07/13/2004.
2. ☒ The allowed claim(s) is/are 1 and 3-101.
3. ☒ The drawings filed on 30 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

William Phillip Fletcher III
Patent Examiner, USPTO
Group Art Unit 1762

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eric M. Gayan (Reg. No. 46,103) on 10/15/2004.

The application has been amended as follows:

Claim 38 (currently amended) A method of improving adhesion between the surface of a thermoplastic polyolefin element and a subsequently applied paint coat, said method comprising:

supplying a mixture of an adhesion promoter and de-ionized water;

providing an application enclosure, said enclosure forming a protective environment for the application of said mixture;

regulating the atmosphere within said application enclosure;

providing said mixture to a plurality of nozzles located within said application enclosure;

locating said thermoplastic polyolefin element within said application enclosure;

applying said mixture ~~at a high flow rate~~ to said thermoplastic polyolefin element using said plurality of nozzles, such that said mixture flows over said thermoplastic polyolefin element;

regulating, during application of said mixture to said thermoplastic polyolefin element, one or more of a flow rate of said mixture, a discharge pattern of said plurality of nozzles, an angle of said plurality of said nozzles, a distance of said plurality of nozzles from said thermoplastic polyolefin element, and an orientation of said thermoplastic polyolefin element, in order to cover said thermoplastic polyolefin element with said mixture while minimizing the agitation thereof; and

drying said thermoplastic polyolefin element in a drying enclosure after application of said mixture;

whereby a dried layer of said adhesion promoter is retained on the surface of said thermoplastic polyolefin element; and

wherein application of said mixture to said thermoplastic polyolefin element in such a manner minimizes or eliminates defects in said dried layer of adhesion promoter.

Claim 74 (currently amended) A method of improving adhesion between a thermoplastic polyolefin element and a subsequently applied paint coat by depositing a layer of an adhesion promoter on the surface of said element, said method comprising:

supplying an adhesion promoter;

forming an adhesion promoter mixture from said adhesion promoter and de-ionized water;

providing a mixture storage tank for receiving and storing a supply of said mixture;

transferring at least a portion of said mixture to said mixture storage tank;

providing a mixture application enclosure, said mixture application enclosure having a regulated atmosphere and forming a protective environment around said thermoplastic polyolefin element during application of said mixture thereto;

providing a gravity tank for receiving a supply of said mixture from said mixture storage tank;

providing at least one supply header for receiving, via gravity from said gravity tank, an amount of said mixture;

providing a plurality of nozzles in communication with said at least one supply header said plurality of nozzles adapted to be adjustable in location and direction, and to distribute said mixture received from said gravity tank over the surface of said thermoplastic polyolefin element;

locating said thermoplastic element on a carrier;

cooling said thermoplastic polyolefin element to approximately the temperature within said mixture application enclosure;

angling at least some of said plurality of nozzles in a direction of travel of said conveyor;

running said thermoplastic polyolefin element through said mixture application enclosure on said conveyor while said mixture is emitted by said plurality of nozzles ~~at a high flow rate~~, thereby causing said mixture to flow over said thermoplastic polyolefin element;

regulating, during application of said mixture to said thermoplastic polyolefin element, one or more of a flow rate of said mixture, a discharge pattern of said plurality of nozzles, a distance of said plurality of nozzles from said thermoplastic polyolefin element, the

Art Unit: 1762

orientation of said thermoplastic polyolefin element on said conveyor, and the speed of said conveyor; and

passing said thermoplastic polyolefin element through a drying enclosure after application of said mixture;

whereby a dried layer of said adhesion promoter is thereafter retained on the surface of said thermoplastic polyolefin element; and

wherein application of said mixture to said thermoplastic polyolefin element in such a manner results in a reduction in the amount of foaming and splashing of said mixture, thereby reducing or eliminating defects in said dried layer of adhesion promoter, which defects would otherwise be inherently visible in said paint coat.

2. Claims 1 and 3-101 are allowed.

3. The following is an examiner's statement of reasons for allowance: Applicant's amendment and response, filed 07/31/2004, amended the claims to overcome the objections and rejections under 35 U.S.C. 112, 2nd Paragraph, set-forth in the Office action mailed 04/14/2004. Consequently these rejections are withdrawn. With respect to the rejections under 35 U.S.C. 103, the prior art neither teaches nor suggests the claimed method of improving adhesion between the surface of one or more TPO elements and a subsequently-applied paint coat, in which the application method reduces or eliminates agitation/foaming of the adhesion promoter mixture to thereby reduce or eliminate defects in the dried layer of adhesion promoter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Art Unit: 1762

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William P. Fletcher III
Examiner
Art Unit 1762

WPF

10/15/2004


SHRIVE P. BECK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700